

PATENT APPLN. NO. 10/595,904  
RESPONSE UNDER 37 C.F.R. § 1.116

**PATENT  
FINAL**

**REMARKS**

Claims 25 and 26 have been canceled without prejudice or disclaimer.

***Claim Rejections - 35 USC § 112***

Claims 25 and 26 are rejected under the second paragraph of 35 U.S.C. § 112 as being indefinite. This rejection is now moot. Claims 25 and 26 have been canceled.

***Claim Rejections - 35 USC § 102/35 U.S.C. § 103***

Claims 2, 25 and 26 are rejected under 35 U.S.C. § 102(b) as being anticipated by Hagenbuch, U.S. Patent No. 5,754,965. Claim 1 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Hagenbuch in view of Mieczkowski et al. ("Mieczkowski").

In the rejections of claims 1 and 2, the Office alleges that Hagenbuch discloses each of the elements of the fuel-saving management system of claim 1, except that Hagenbuch does not explicitly disclose detecting a fuel flow rate. The Office takes the positions that Hagenbuch discloses detection of fuel pressure and that the use of a pressure sensor to determine a fuel flow rate was well known in the art at the time of the invention at the time of the invention as evidenced by Mieczkowski.

The 35 U.S.C. § 102(b) and 35 U.S.C. § 103(a) rejections are moot as they apply to claims 25 and 26, which, as noted above, have

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been canceled.

The rejections of claims 1 and 2 under 35 U.S.C § 102(b) and 35 U.S.C. § 103(a) are respectfully traversed.

Independent claim 1 defines a fuel-saving management system comprising, on a motor vehicle:

an information detection device detecting information on a running state of the vehicle;

an information-processing device processing the information detected by the information detection device, the information-processing device also generating a warning when the processed information satisfies required warning conditions; and

an information storage device storing the processed information;

wherein, when a time during which the processed information is maintained to satisfy the required warning conditions or an elapsed time of the processed information exceeds a previously set time, the information-processing device stores the occurrence of the overtime event into the information storage device,

wherein the processed information includes processed general-road information and processed highway/expressway information,

wherein the processed general-road information includes either a vehicle speed, an engine speed, an accelerator angle, or an elapsed idling time, or a combination of any two thereof, and

wherein the information-processing device detects a fuel flow rate as information on the running state of the vehicle, and generates the warning on the engine speed when the fuel flow rate exceeds a previously set value.

(Emphasis added).

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The fuel-saving management system of the present invention as recited in claim 1 comprises an information detection device, an information-processing device, and an information storage device. The information-processing device is configured to process information detected by the information detection device, for example, a fuel flow rate relating to a running state of the vehicle, and to generate a warning when the processed information satisfies a required warning condition. For example, the information-processing device generates a warning when excessive fuel flow rate is indicated by the processed information.

Moreover, in the fuel-saving management system of the present invention, as defined in claim 1, when a time during which processed information is maintained to satisfy required warning conditions or an elapsed time of the processed information exceeds a previously set time, the information-processing device stores the occurrence of the overtime event into the information storage device. In this manner, applicants' claimed system provides the advantage of enabling a driver to correct momentary warnings in time to have a minimal effect on vehicle efficiency (i.e., prior to the generation of an overtime event) and thereby avoid the "mental burden" of attempting to drive in such a manner as to generate no warnings. At the same time, when warnings are generated and

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continue for a substantial amount of time, overtime events are recorded which can be used by a dispatcher or other supervisor of the driver to encourage improved performance.

Hagenbuch does not disclose each of these elements of the fuel-saving management system of the present invention.

Although Hagenbuch discloses an apparatus for providing an operator with a real-time indicator of the efficiency of a vehicle, the apparatus of Hagenbuch does not include an information-processing device that is configured to judge that a time during which the warning is generated exceeds a predetermined overlimit time. I.e., Hagenbuch nowhere discloses or otherwise suggests detection and recording of an overtime event that is determined only when the time of a generated warning exceeds a predetermined time. Hagenbuch teaches that a chronology of vital signs can be recorded at a predetermined interval (see, e.g., Col. 8, lines 3-30; and Col. 12, lines 7-12), but this is not a disclosure or suggestion of a system where, when a time during which the processed information is maintained to satisfy the required warning conditions or an elapsed time of the processed information exceeds a previously set time, the information-processing device stores the occurrence of the overtime event into the information storage device.

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The Office alleges in the 35 U.S.C. § 102(b) and 35 U.S.C. § 103(a) rejections that the fuel-saving management system of Hagenbuch includes an information-processing device that generates a warning when processed information satisfies required warning conditions; and an information storage device storing the processed information; and "wherein, when a time during which the processed information is maintained to satisfy the required warning conditions or an elapsed time of the processed information exceeds a previously set time, the information-processing device stores the occurrence of the overtime event into the information storage device, ... ." (Final Office Action, page 5, lines 8-12; and page 7, second paragraph, lines 8-12). However, the Office does not show or explain where such limitation is disclosed in Hagenbuch and does not otherwise support its position. Mieczkowski is not cited as teaching, and does not teach, the limitation.

For the above reasons, Hagenbuch, alone or in combination with Mieczkowski, is insufficient to support a 35 U.S.C. § 102(b) or 35 U.S.C. § 103(a) rejection of claim 1. Since claim 2 includes essentially the same elements, or limitations, Hagenbuch, alone or in combination with Mieczkowski, is also insufficient to support a 35 U.S.C. § 102(b) or 35 U.S.C. § 103(a) rejection of claim 2. Claims 1 and 2 are in condition for allowance.

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Withdrawal of the 35 U.S.C. § 102(b) and 35 U.S.C. § 103(a) rejections is respectfully requested.

The foregoing is believed to be a complete and proper response to the Office Action dated December 18, 2009.

In the event that this paper is not considered to be timely filed, applicants hereby petition for an appropriate extension of time. The fee for any such extension may be charged to our Deposit Account No. 111833.

In the event any additional fees are required, please also charge our Deposit Account No. 111833.

Respectfully submitted,

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